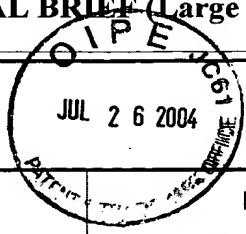


AF/2123

<b>TRANSMITTAL OF APPEAL BRIEF (Large Entity)</b>			Docket No. 199-1255
In Re Application Of: <b>Krishna Murthy et al.</b>			
Serial No. 09/537,659	Filing Date March 29, 2000	Examiner E. Garcia Otero	Group Art Unit 2123
Invention: <b>METHOD OF INTEGRATING PRODUCT INFORMATION MANAGEMENT WITH VEHICLE</b>			



TO THE COMMISSIONER FOR PATENTS:

Transmitted herewith in triplicate is the Appeal Brief in this application, with respect to the Notice of Appeal filed on May 20, 2004.

The fee for filing this Appeal Brief is: \$330.00

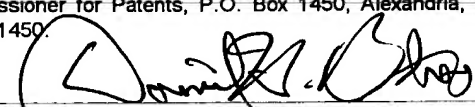
- ☐ A check in the amount of the fee is enclosed.
- ☐ The Director has already been authorized to charge fees in this application to a Deposit Account.
- ☒ The Director is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. 06-1510

  
Signature

Dated: July 20, 2004

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Record I.D. 81076184

I certify that this document and fee is being deposited on <u>July 20, 2004</u> with the U.S. Postal Service as first class mail under 37 C.F.R. 1.8 and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.	
	
Signature of Person Mailing Correspondence	
Daniel H. Bliss	
Typed or Printed Name of Person Mailing Correspondence	

CC:



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Art Unit: 2123 )  
)  
Examiner: E. Garcia Otero )  
)  
Applicant(s): Krishna Murthy et al. )  
)  
Serial No.: 09/537,659 )  
)  
Filing Date: March 29, 2000 )  
)  
For: METHOD OF INTEGRATING )  
PRODUCT INFORMATION )  
MANAGEMENT WITH VEHICLE )  
DESIGN )

**APPEAL BRIEF**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Sir:

By Notice of Appeal filed May 20, 2004, Applicants have appealed the Final Rejection dated February 20, 2004 and submit this brief in support of that appeal.

**REAL PARTY IN INTEREST**

The real party in interest is the Assignee, Ford Global Technologies, Inc.

**RELATED APPEALS AND INTERFERENCES**

There are no related appeals or interferences regarding the present application.

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**STATUS OF CLAIMS**

Claims 1 through 16 have been rejected.

**CERTIFICATE OF MAILING:** (37 C.F.R. 1.8) I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the U.S. Postal Service with sufficient postage as First Class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450 on July 20, 2004, by Daniel H. Bliss  
Daniel H. Bliss

Claims 1 through 16 are being appealed.

### **STATUS OF AMENDMENTS**

An Amendment under 37 C.F.R. 1.116 was filed on April 20, 2004 in response to the Final Office Action dated February 20, 2004. An Advisory Action dated May 24, 2004 indicated that the Amendment under 37 C.F.R. 1.116 had been considered, but raised new issues that would require further consideration and/or search. Upon the filing of an appeal, the Amendment under 37 C.F.R. 1.116 would not be entered. A Notice of Appeal, along with the requisite fee, was filed on May 20, 2004. The Appeal Brief, along with the requisite fee, is submitted herewith.

### **SUMMARY OF THE INVENTION**

The present invention is a method of integrating product information management with vehicle design. The product information management makes data and information from a variety of sources available through a common source, and provides for delivery of the information to the user 126 for use in critical product decision making. The method utilizes a web-enabled portal process to provide the user 126 with information in its original format and content to use in the design of the vehicle 10. An information portal is a web site that provides a particular audience with access to diverse sets of information organized in a specific manner. The user 126 can be linked with other experts through an information portal screen to assist in the underlying engineering process. The information portal is organized into screens that provide the user 126 with information to make an informed decision relating to the vehicle design 128 of the vehicle 10. Examples of the type of information relevant to vehicle design 128 include warranty,

product design data and manufacturing data. The method utilizes a web-based portal process to provide the user 126 with information in its original format and content to use in the vehicle design 128 of the vehicle 10. (Page 12, line 19 through page 13, line 26).

The user 126 determines specific program requirements related to the vehicle design 128 of the vehicle 10 and selects an information database for decision making purposes from an information portal displayed on the video terminal 124b. An example of a program requirement is information maintained within the knowledge-based library 112 regarding the type of vehicle 10 to be designed, such as passenger car or truck. Another example of a program requirement is anticipated production volume, or vehicle body style. Still another example of a program requirement is a warranty target. The user 126 may select a program requirement from an information portal screen displayed on the display terminal 124b containing a list of program requirements. The user 126 may also select an information database related to making an informed decision regarding the vehicle design 128 of the vehicle 10 from the information portal screen. The information database is a compilation of existing information maintained within a database in the knowledge-based engineering library 112. The information may be existing data from a previously conducted vehicle test procedure. (Page 14, line 13 through page 15, line 11).

The methodology determines if the information from the information database correlates with the program requirements. The information may be compared to the program requirements to determine if there is a change in a component part that would affect the use of the information in making an informed decision regarding the vehicle design 128. The information may also be compared to the program requirements to determine if there is a design or manufacturing process change that would affect the use of the information. The information may further be compared to the program requirements to determine if there is a field issue or a change

in customer expectation that would affect its use. If the information does satisfy the program requirements, the methodology uses the information from the information database in making an informed decision regarding the design of the vehicle 10. (Page 15, line 12 through page 16, line 6).

If the information does not correlate with the program requirements, the user 126 determines if additional information from another database is available to assist in determining if the information database correlates with the program requirements. The various other information sources are displayed in another information portal screen on the display terminal 124b. The additional information may be data regarding field issues or changes in customer expectations, significant design or manufacturing process changes, changes to other components or impacts on the other components. (Page 16, lines 7 through 20).

The user 126 determines if a portion of the information from the information database correlates with the program requirements in light of the additional information available through the information portal screen. The user 126 may access a database to review conditions under which the information was generated to determine if a portion of the information correlates with the program requirements. The user 126 may also access a database to determine if criteria exist to determine if a portion of the information will correlate with the specific program requirements. If a portion of the information will correlate with the specific program requirements, the user 126 uses the portion of the information from the information database that satisfies the specific program requirements for informed decision-making regarding the vehicle design 128 of the vehicle 10. (Page 16, line 22 through page 17, line 14).

If the portion of the information does not satisfy the predetermined requirements in light of the additional information, the user 126 determines through the information portal if

still more information is available from still another database within the knowledge-based engineering library 112 to assist in determining if a portion of the information from the information database correlates with the program requirements. The user 126 determines through the additional information displayed on the information portal whether to generate new information pertaining to the vehicle design 128 of the vehicle 10 based on the available additional information. The user 126 may decide to perform a task such as a laboratory test, since existing test information or a portion thereof is not reusable. If the user 126 decides to generate new information, the user 126 generates new information. The user 126 may decide whether to perform a test on either an actual vehicle or in a laboratory. If the user 126 determines not to generate new information, the methodology ends. (Page 17, line 16 through page 18, line 17).

### **ISSUE**

The issues in this Appeal are statutorily formulated in 35 U.S.C. § 112 and 103. Specifically, one issue is whether the claimed invention of claims 1 through 16 contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Another issue is whether the claimed invention of claims 1 through 16 fail to comply with the written description requirement. A further issue is whether the claimed invention of claims 1 through 16 are indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. A final issue is whether the claimed invention of claims 1 through 16 is obvious and unpatentable under 35 U.S.C. § 103

over Juran (Juran on Quality by Design) in view of Tucker (The Computer Science and Engineering Handbook).

### **GROUPINGS OF CLAIMS**

Claims 1 through 16 stand or fall together in regard to the rejections under 35 U.S.C. § 112.

Claims 1 through 6 stand or fall together in regard to the rejection under 35 U.S.C. § 103.

Claims 7 through 9 stand or fall together in regard to the rejection under 35 U.S.C. § 103.

Claims 10 through 16 stand or fall together in regard to the rejection under 35 U.S.C. § 103.

### **ARGUMENT**

#### **35 U.S.C. § 112**

As to patentability, 35 U.S.C. § 112 provides that:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

#### **Enablement**

An analysis of whether the claims are supported by an enabling disclosure requires a determination of whether that disclosure contained sufficient information regarding the subject

matter of the claims as to enable one skilled in the pertinent art to make and use the claimed invention. The test for enablement is whether one skilled in the art could make and use the claimed invention from the disclosure coupled with information known in the art without undue experimentation. See United States v. Teletronics, Inc., 857 F.2d 778, 785, 8 U.S.P.Q.2d 1217, 1223 (Fed. Cir. 1988), cert. denied, 109 S.Ct. 1954 (1989); In re Stephens, 529 F.2d 1343, 1345, 188 USPQ 659, 661 (C.C.P.A. 1976).

In order to make a rejection, the Examiner has the initial burden to establish a reasonable basis to question the enablement provided for the claimed invention. See In re Wright, 999 F.2d 1557, 1561-62, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993)(Examiner must provide a reasonable explanation as to why the scope of protection provided by a claim is not adequately enabled by the disclosure).

Thus, the dispositive issue is whether Applicants' disclosure, considering the level of ordinary skill in the art as of the date of Applicants' application, would have enabled a person of such skill to make Applicants' invention without undue experimentation. The threshold step in resolving this issue as set forth supra is to determine whether the Examiner has met his burden of proof by advancing acceptable reasoning inconsistent with enablement. This the Examiner has not done.

The Examiner relies on page 3, line 11, as support for his contention that the term "library" in the step of "selecting a vehicle program requirement from a library" of claim 1 is not adequately described. The Examiner relies on the wrong portion of the specification, that is, the Summary of the Invention. The term "library" is adequately described under the Description of the Preferred Embodiment(s) on page 6 of the specification. The specification clearly states, on page 6, lines 3 through 20, that:



The tools 100 include a knowledge-based engineering library 112 stored on an electronic storage device (not shown) that is operatively connected to a computer system 122 to be described. The knowledge-based engineering library 112 is a database of sub-libraries containing an electronic representation of data including various experts' knowledge of information relevant to the design of a vehicle 10 to be described. The knowledge-based engineering library 112 may include information such as design, assembly and manufacturing rules and guidelines. The knowledge-based engineering library 112 may also contain data in electronic form regarding various types of vehicle subsystems. The knowledge-based engineering library 112 may further contain predetermined product assumptions regarding the vehicle 10 to be designed, such as model year, style, or production volume.

Based on the above, the specification adequately describes that the information is maintained within the knowledge-based library. One skilled in the vehicle art could make and use the claimed invention from the specification coupled with information known in the art such as U.S. Patent Nos. 6,113,644 and 6,487,525, which describe knowledge-based libraries, without undue experimentation. These knowledge-based libraries are known in the art and therefore are enabled to allow one skilled in the vehicle art to make and use the claimed invention without having such rules described in the specification. The Examiner's expert systems examples are clearly misplaced and not applicable to the present invention.

The Examiner relies on a dictionary definition of the term "correlates" as support for his contention that the term "correlates" in the step of "determining if the information from the information database correlates with the program requirement" of claim 1 is not adequately described. The Examiner relies on the wrong portion of the specification, that is, page 16 of the specification. The specification clearly states, on page 15, lines 12 through 26, that:

In diamond 210, the methodology determines if the information from the information database correlates with the program requirements. For example, the information may be compared to the program requirements to determine if there is a change in a component part that would affect the use of the information in making an informed decision regarding the vehicle design 128. The information may also be compared to the program requirements to determine if there is a design or manufacturing process change that would affect the use of the information.

Based on the above, the specification adequately describes determining if the information from the information database correlates with the program requirement. Contrary to the Examiner's opinion, the term "correlates" is not a very high level expert system function. The term "correlates" is performed by comparing the information to the program requirements. One skilled in the vehicle art would clearly have sufficient information regarding the subject matter of the claims as to enable one skilled in the vehicle art to make and use the claimed invention. The Examiner's expert systems examples are clearly misplaced and not applicable to the present invention.

The Examiner contends that the phrase "using the information" in the step of "using the information from the information database in the design of the vehicle if the information from the information database correlates with the program requirement" of claim 1 is not adequately described. The specification clearly states, on page 16, lines 3 through 6, that:

In block 215, the methodology uses the information from the information database in making an informed decision regarding the design of the vehicle 10.

The specification also clearly states, on page 13, lines 20 through 22, that:

Examples of the type of information relevant to vehicle design 128 include warranty, product design data and manufacturing data.

Based on the above, the specification adequately describes using the information from the information database in the design of the vehicle if the information from the information database correlates with the program requirement. One skilled in the vehicle art could make and use the claimed invention from the specification coupled with information known in the art such as U.S. Patent Nos. 6,113,644 and 6,487,525, which describe how to use information in making an informed decision regarding the design of a vehicle system such as a climate control system, without undue experimentation. Using information in making an informed decision regarding the design of a vehicle is known in the art and therefore is enabled to allow one skilled in the vehicle art to make and use the claimed invention without having to describe such use in the specification. The Examiner's expert systems examples are clearly misplaced and not applicable to the present invention.

The Examiner contends that the terms "determining", "condition", and "verification information" in the step of "determining through the information portal if a condition is known by which the verification information was generated, if a portion of the verification information correlates with the program requirement" of claim 11 is not adequately described. The specification clearly states, on page 21, line 19, through page 22, line 5, that:

Returning to diamond 325, if a portion of the information does satisfy a predetermined requirement, the methodology advances to diamond 350. In diamond 350, the user 126 determines through the information provided through the information portal if conditions are known under which the existing durability data was generated. Advantageously, additional information from still another information database within the knowledge-based engineering library 112, such as noise criteria, may be utilized in further partitioning the data. If the conditions are not known, then the methodology advances to diamond 330 and continues.

Further, the specification clearly states, on page 22, lines 6 through 14, that:

Returning to diamond 350, if the conditions are known, the methodology advances to diamond 355. In diamond 355, the user 126 determines through additional information provided in the information portal screen if the degree of confidence in the existing verified data meets a predetermined criteria. For example, the user 126 may perform a computer-aided engineering (CAE) analysis to determine the degree of confidence in the existing data.

Based on the above, the specification adequately describes determining through the information portal if a condition is known by which the verification information was generated, if a portion of the verification information correlates with the program requirement. The term “determine” has its ordinary meaning of “to decide” if “conditions” are known under which the existing durability data was generated. One skilled in the vehicle art would clearly have sufficient information regarding the subject matter of the claims as to enable one skilled in the vehicle art to make and use the claimed invention. The Examiner’s expert systems examples are clearly misplaced and not applicable to the present invention. It is respectfully submitted that claims 1 through 16 are allowable over the rejection under 35 U.S.C. § 112, first paragraph.

### **Written Description**

The first paragraph of Section 112 provides that “the specification shall contain a written description of the invention . . .”. “The description requirement’s purposes are to assure that the applicant was in full possession of the claimed subject matter on the application filing date and to allow other inventors to develop and obtain patent protection for later improvements and subservient inventions that build on applicant’s teachings.” See In re Barker, 559 F.2d 588, 194 U.S.P.Q. 470 (C.C.P.A. 1977), cert. denied, 434 U.S. 1064 (1978); Vas-Cath Inc. v.

Mahurkar, 935 F.2d 1555, 19 U.S.P.Q.2d 1111 (Fed. Cir. 1991); and In re Dossel, 115 F.2d 942, 42 U.S.P.Q.2d 1881 (Fed. Cir. 1997).

Thus, the dispositive issue is whether Applicants' disclosure in the patent application relied upon "reasonably conveys to the artisan that the inventor had possession at the time of the later claimed subject matter". The threshold step in resolving this issue as set forth *supra* is to determine whether the Examiner has met his burden of proof by advancing acceptable reasoning inconsistent with the written description. This the Examiner has not done.

The specification clearly states, on page 14, line 13 through page 15, line 2, that:

In block 205, the user 126 determines specific program requirements related to the vehicle design 128 of the vehicle 10 and selects an information database for decision making purposes from an information portal displayed on the video terminal 124b. An example of a program requirement is information maintained within the knowledge-based library 112 regarding the type of vehicle 10 to be designed, such as passenger car or truck. Another example of a program requirement is anticipated production volume, or vehicle body style. Still another example of a program requirement is a warranty target. Advantageously, the user 126 may select a program requirement from an information portal screen displayed on the display terminal 124b containing a list of program requirements.

The specification clearly states, on page 6, lines 3 through 20, that:

The tools 100 include a knowledge-based engineering library 112 stored on an electronic storage device (not shown) that is operatively connected to a computer system 122 to be described. The knowledge-based engineering library 112 is a database of sub-libraries containing an electronic representation of data including various experts' knowledge of information relevant to the design of a vehicle 10 to be described. The knowledge-based engineering library 112 may include information such as design, assembly and manufacturing rules and guidelines. The knowledge-based engineering library 112 may also contain data in electronic form

regarding various types of vehicle subsystems. The knowledge-based engineering library 112 may further contain predetermined product assumptions regarding the vehicle 10 to be designed, such as model year, style, or production volume.

Further, the specification clearly states, on page 15, lines 12 through 26, that:

In diamond 210, the methodology determines if the information from the information database correlates with the program requirements. For example, the information may be compared to the program requirements to determine if there is a change in a component part that would affect the use of the information in making an informed decision regarding the vehicle design 128. The information may also be compared to the program requirements to determine if there is a design or manufacturing process change that would affect the use of the information.

In addition, the specification clearly states, on page 16, lines 3 through 6, that:

In block 215, the methodology uses the information from the information database in making an informed decision regarding the design of the vehicle 10.

The specification also clearly states, on page 13, lines 20 through 22, that:

Examples of the type of information relevant to vehicle design 128 include warranty, product design data and manufacturing data.

The specification clearly states, on page 21, line 19, through page 22, line 5, that:

Returning to diamond 325, if a portion of the information does satisfy a predetermined requirement, the methodology advances to diamond 350. In diamond 350, the user 126 determines through the information provided through the information portal if conditions are known under which the existing durability data was generated. Advantageously, additional information from still another information database within the knowledge-based engineering library 112, such as noise criteria, may be utilized in further partitioning the

data. If the conditions are not known, than the methodology advances to diamond 330 and continues.

Further, the specification clearly states, on page 22, lines 6 through 14, that:

Returning to diamond 350, if the conditions are known, the methodology advances to diamond 355. In diamond 355, the user 126 determines through additional information provided in the information portal screen if the degree of confidence in the existing verified data meets a predetermined criteria. For example, the user 126 may perform a computer-aided engineering (CAE) analysis to determine the degree of confidence in the existing data.

Based on the above, Applicants' disclosure reasonably conveys to the artisan that the inventor had possession at the time of the later claimed subject matter. Contrary to the Examiner's assertion, Applicants' have adequately described the terms library, correlates, and using the information. Finally, an artisan would reasonably understand from the Specification and drawings as a whole that the information is in the knowledge-based library, that the information is compared to correlate it, and that the information is used by an operator to make an informed decision. Therefore, it is respectfully submitted that claims 1 through 16 are allowable over the rejection under 35 U.S.C. § 112, first paragraph.

### **Definiteness**

Claims 1 through 16 are clear and definite as to the terms library, correlates, and using the information. Such terms or phrases are interpreted in light of the specification. As to claim 2, claim 2 is clear and definite. The specification states on page 16, lines 10 through 13, that the user 126 determines if additional information from another database is available to assist in determining if the information database correlates with the program requirements. Therefore,

it is respectfully submitted that claims 1 through 16 are allowable over the rejection under 35 U.S.C. § 112, second paragraph.

### 35 U.S.C. § 103

As to patentability, 35 U.S.C. § 103 provides that a patent may not be obtained:

If the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Id.

The United States Supreme Court interpreted the standard for 35 U.S.C. § 103 in Graham v. John Deere, 383 U.S. 1, 148 U.S.P.Q. 459 (1966). In Graham, the Court stated that under 35 U.S.C. § 103:

The scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or non-obviousness of the subject matter is determined. 148 U.S.P.Q. at 467.

Using the standard set forth in Graham, the scope and content of the prior art relied upon by the Examiner will be determined.

As to the primary reference applied by the Examiner, the publication "Juran on Quality by Design" to Juran discloses new steps for planning quality into goods and services. A data base is a body of information derived from prior cycles of activity, and organized to aid in the conduct of future cycles. Data bases are the result of lessons learned from human experience. These lessons learned are then stored in memories to be used as needed. Figure 12-1 sets out the critical aspects of construction and use of data bases and the associated consequences. With



respect to quality, the upper managers concluded that Taurus should be "Best in Class": the quality should be equal or superior to that of any competing model in the "class," domestic or foreign.

As to the secondary reference applied by the Examiner, the publication "The Computer Science and Engineering Handbook" to Tucker discloses the World Wide Web (WWW) is the fastest-growing protocol on the Internet.

In contradistinction, claim 1 claims the present invention as a method of integrating product information management with vehicle design. The method includes the steps of selecting a vehicle program requirement from a library stored in a memory of a computer system, wherein the library is accessed through an information portal on the computer system. The method also includes the steps of selecting an information database containing information related to the design of the vehicle from the library, wherein the information database is accessed through the information portal. The method includes the steps of determining if the information from the information database correlates with the program requirement. The method further includes the steps of using the information from the information database in the design of the vehicle, if the information from the information database correlates with the program requirement.

The United States Court of Appeals for the Federal Circuit (CAFC) has stated in determining the propriety of a rejection under 35 U.S.C. § 103(a), it is well settled that the obviousness of an invention cannot be established by combining the teachings of the prior art absent some teaching, suggestion or incentive supporting the combination. See In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 227 U.S.P.Q. 657 (Fed. Cir. 1985); ACS Hospital Systems, Inc. v. Montefiore

Hospital, 732 F.2d 1572, 221 U.S.P.Q. 929 (Fed. Cir. 1984). The law followed by our court of review and the Board of Patent Appeals and Interferences is that “ [a] prima facie case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art.” In re Rinehart, 531 F.2d 1048, 1051, 189 U.S.P.Q. 143, 147 (C.C.P.A. 1976). See also In re Lahu, 747 F.2d 703, 705, 223 U.S.P.Q. 1257, 1258 (Fed. Cir. 1984) (“In determining whether a case of prima facie obviousness exists, it is necessary to ascertain whether the prior art teachings would appear to be sufficient to one of ordinary skill in the art to suggest making the claimed substitution or other modification.”)

As to the differences between the prior art and the claims at issue, Juran merely discloses new steps for planning quality into goods and services in which a data base is a body of information derived from prior cycles of activity, and organized to aid in the conduct of future cycles. Juan lacks a library accessed through an information portal on a computer system and an information database accessed through the information portal. Juran also lacks the steps of selecting a vehicle program requirement from a library stored in a memory of a computer system, selecting an information database containing information related to the design of the vehicle from the library, determining if the information from the information database correlates with the program requirement, and using the information from the information database in the design of the vehicle. In Juran, the steps include the use of a data base, but do not include selecting a vehicle program requirement from a library, selecting an information database containing information related to the design of the vehicle from the library, and determining if the information from the information database correlates with the program requirement. Contrary to the Examiner’s opinion, page 409 of Juran discloses that Figure 12-1 sets out the critical aspects

of construction and use of data bases, which is not the same or similar to selecting an information database containing information related to the design of a vehicle, determining if the information from the information database correlates with the program requirement, or using the information from the information database in the design of the vehicle, if the information from the information database correlates with the program requirement.

Tucker merely discloses that the World Wide Web (WWW) is the fastest-growing protocol on the Internet. Tucker lacks a method of integrating product information management with vehicle design. Tucker also lacks selecting a vehicle program requirement from a library stored in a memory of a computer system, selecting an information database containing information related to the design of the vehicle from the library, determining if the information from the information database correlates with the program requirement, and using the information from the information database in the design of the vehicle. In Tucker, there is no integration of product information with vehicle design. Although Tucker discloses the Internet, it does not make up for the deficiencies in Juran such as selecting an information database containing information related to the design of a vehicle, determining if the information from the information database correlates with the program requirement, or using the information from the information database in the design of the vehicle, if the information from the information database correlates with the program requirement. There is no suggestion or motivation in the art to combine Juran and Tucker together.

There is absolutely no teaching of a level of skill in the vehicle art that a method of integrating product information management with vehicle design includes the steps of selecting an information database containing information related to the design of a vehicle, determining if the information from the information database correlates with the program

requirement, or using the information from the information database in the design of the vehicle, if the information from the information database correlates with the program requirement. The Examiner may not, because he doubts that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in the factual basis. See In re Warner, 379 F. 2d 1011, 154 U.S.P.Q. 173 (C.C.P.A. 1967). While Juran teaches the use of a data base, Juran does not teach or suggest that a method of integrating product information management with vehicle design including the steps of selecting an information database containing information related to the design of a vehicle, determining if the information from the information database correlates with the program requirement, or using the information from the information database in the design of the vehicle, if the information from the information database correlates with the program requirement. Thus, none of the references teaches a level of skill in the art of vehicles that a method can be performed by selecting an information database containing information related to the design of a vehicle, determining if the information from the information database correlates with the program requirement, or using the information from the information database in the design of the vehicle, if the information from the information database correlates with the program requirement.

The present invention sets forth a unique and non-obvious combination of a method of integrating product information management with vehicle design. Advantageously, the method links together various existing databases, system infrastructure and information sources to provide a user with access to information contained therein to assist the user in informed decision making. The references, if combinable, fail to teach or suggest the combination of a method of integrating product information management with vehicle design including the steps of selecting a vehicle program requirement from a library stored in a memory

of a computer system, wherein the library is accessed through an information portal on the computer system, selecting an information database containing information related to the design of the vehicle from the library, wherein the information database is accessed through the information portal, determining if the information from the information database correlates with the program requirement, and using the information from the information database in the design of the vehicle, if the information from the information database correlates with the program requirement as claimed by Applicants. The Examiner has failed to establish a case of prima facie obviousness.

Against this background, it is submitted that the present invention of claim 1 is not obvious over Juran and Tucker. The references fail to teach or suggest the combination of a method of integrating product information management with vehicle design of claim 1. Therefore, it is respectfully submitted that claim 1 is not obvious and is allowable over the rejection under 35 U.S.C. § 103.

The law is clear that a claim in dependent form shall be construed to incorporate by reference all of the limitations of the claim to which it refers. 35 U.S.C. § 112, ¶ 4. Dependent claims 2 through 6 perfect and further limit independent claim 1. Claim 2 defines selecting through the information portal additional information for determining if the information from the information database correlates with the program requirement, if the information from the information database does not correlate with the program requirement. Claim 3 defines determining if a portion of the information from the information database correlates with the program requirement based on the additional information. Claim 4 defines using the portion of the information from the information database that correlates with the program requirement in the design of the vehicle, if a portion of the information from the information database correlates

with the program requirement. Claim 5 defines selecting through the information portal additional information regarding the design of the vehicle. Claim 6 defines using the additional information to determine whether to generate new information for use in the design of the vehicle and generating new information if determined that the new information should be generated. Based on the above, it is respectfully submitted that claims 2 through 6 are not obvious and are allowable over the rejection under 35 U.S.C. § 103.

As to independent claim 7, claim 7 claims the present invention as a method of integrating product information management with vehicle design. The method includes the steps of selecting a vehicle program requirement from a library stored in a memory of a computer system, wherein the library is accessed through a web-based information portal on the computer system. The method also includes the steps of selecting an information database containing information related to the design of the vehicle from the library, wherein the information database is accessed through the information portal. The method includes the steps of determining if the information from the information database correlates with the program requirement and using the information from the information database in the design of the vehicle, if the information from the information database correlates with the program requirement. The method further includes the steps of selecting through the information portal additional information for determining if the information from the information database correlates with the program requirement, if the information from the information database does not correlate with the program requirement. The method includes the steps of determining if a portion of the information from the information database correlates with the program requirement based on the additional information and using the portion of the information from the information database that correlates with the program requirement in the design of the vehicle.

None of the references cited, either alone or in combination with each other, teach or suggest the claimed invention of claim 7. Specifically, Juran merely discloses new steps for planning quality into goods and services in which a data base is a body of information derived from prior cycles of activity, and organized to aid in the conduct of future cycles. Juan lacks a library accessed through a web-based information portal on a computer system and an information database accessed through the information portal. Juran also lacks the steps of selecting a vehicle program requirement from a library stored in a memory of a computer system, selecting an information database containing information related to the design of the vehicle from the library, determining if the information from the information database correlates with the program requirement, and using the information from the information database in the design of the vehicle. Juran further lacks the steps of selecting through the information portal additional information for determining if the information from the information database correlates with the program requirement, if the information from the information database does not correlate with the program requirement, determining if a portion of the information from the information database correlates with the program requirement based on the additional information, and using the portion of the information from the information database that correlates with the program requirement in the design of the vehicle. In Juran, the steps include the use of a data base, but do not include selecting a vehicle program requirement from a library, selecting an information database containing information related to the design of the vehicle from the library, and determining if the information from the information database correlates with the program requirement. Also in Juran, there is no selecting through the information portal additional information for determining if the information from the information database correlates with the program requirement, determining if a portion of the information from the information database

correlates with the program requirement based on the additional information, and using the portion of the information from the information database that correlates with the program requirement in the design of the vehicle. Contrary to the Examiner's opinion, page 409 of Juran discloses that Figure 12-1 sets out the critical aspects of construction and use of data bases, which is not the same or similar to selecting an information database containing information related to the design of a vehicle, determining if the information from the information database correlates with the program requirement, or using the information from the information database in the design of the vehicle, if the information from the information database correlates with the program requirement.

Tucker merely discloses that the World Wide Web (WWW) is the fastest-growing protocol on the Internet. Tucker lacks a method of integrating product information management with vehicle design. Tucker also lacks selecting a vehicle program requirement from a library stored in a memory of a computer system, selecting an information database containing information related to the design of the vehicle from the library, determining if the information from the information database correlates with the program requirement, and using the information from the information database in the design of the vehicle. Tucker further lacks selecting through the information portal additional information for determining if the information from the information database correlates with the program requirement, if the information from the information database does not correlate with the program requirement, determining if a portion of the information from the information database correlates with the program requirement based on the additional information, and using the portion of the information from the information database that correlates with the program requirement in the design of the vehicle. In Tucker, there is no integration of product information with vehicle design. Although Tucker



discloses the Internet, it does not make up for the deficiencies in Juran such as selecting an information database containing information related to the design of a vehicle, determining if the information from the information database correlates with the program requirement, or using the information from the information database in the design of the vehicle, if the information from the information database correlates with the program requirement.

There is absolutely no teaching of a level of skill in the vehicle art that a method of integrating product information management with vehicle design can be performed by selecting an information database containing information related to the design of a vehicle, determining if the information from the information database correlates with the program requirement, or using the information from the information database in the design of the vehicle, if the information from the information database correlates with the program requirement. The Examiner may not, because he doubts that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in the factual basis. See In re Warner, 379 F. 2d 1011, 154 U.S.P.Q. 173 (C.C.P.A. 1967). While Juran teaches the use of a data base, Juran does not teach or suggest that a method of integrating product information management with vehicle design including the steps of selecting an information database containing information related to the design of a vehicle, determining if the information from the information database correlates with the program requirement, or using the information from the information database in the design of the vehicle, if the information from the information database correlates with the program requirement. Thus, none of the references teaches a level of skill in the art of vehicles that a method can be performed by selecting an information database containing information related to the design of a vehicle, determining if the information from the information database correlates with the program requirement, or using the

information from the information database in the design of the vehicle, if the information from the information database correlates with the program requirement.

The present invention sets forth a unique and non-obvious combination of a method of integrating product information management with vehicle design. Advantageously, the method links together various existing databases, system infrastructure and information sources to provide a user with access to information contained therein to assist the user in informed decision making. The references, if combinable, fail to teach or suggest the combination of a method of integrating product information management with vehicle design including the steps of selecting a vehicle program requirement from a library stored in a memory of a computer system, wherein the library is accessed through a web-based information portal on the computer system, selecting an information database containing information related to the design of the vehicle from the library, wherein the information database is accessed through the information portal, determining if the information from the information database correlates with the program requirement, using the information from the information database in the design of the vehicle, if the information from the information database correlates with the program requirement, selecting through the information portal additional information for determining if the information from the information database correlates with the program requirement, if the information from the information database does not correlate with the program requirement, determining if a portion of the information from the information database correlates with the program requirement based on the additional information, and using the portion of the information from the information database that correlates with the program requirement in the design of the vehicle as claimed by Applicants.

Further, the CAFC has held that “[t]he mere fact that prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification”. In re Gordon, 733 F.2d 900, 902, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984). The Examiner has failed to show how the prior art suggested the desirability of modification to achieve Applicants’ invention. Thus, the Examiner has failed to establish a case of prima facie obviousness.

Against this background, it is submitted that the present invention of claim 7 is not obvious over Juran and Tucker. The references fail to teach or suggest the combination of a method of integrating product information management with vehicle design of claim 7. Therefore, it is respectfully submitted that claim 7 is not obvious and is allowable over the rejection under 35 U.S.C. § 103.

Dependent claims 8 and 9 perfect and further limit independent claim 7. Claim 8 defines selecting through the information portal additional information regarding the design of the vehicle. Claim 9 defines using the additional information to determine whether to generate new information for use in the design of the vehicle and generating new information if determined that the new information should be generated. Based on the above, it is respectfully submitted that claims 8 and 9 are not obvious and are allowable over the rejection under 35 U.S.C. § 103.

As to claim 10, claim 10 claims the present invention as a method of integrating product information management with vehicle design to verify existing information, using a computer system having a memory, a display device and a user interactive device. The method includes the steps of selecting a vehicle program requirement for the design of the vehicle from a library stored in a memory of the computer system, wherein the library is access through a web-

based information portal displayed on the display device. The method also includes the steps of selecting an information database of verification information for the design of the vehicle, wherein the information database is accessed through the information portal. The method includes the steps of determining if the verification information from the information database correlates with the program requirement and using the information database in the design of the vehicle if the verification information correlates with the program requirement. The method further includes the steps of selecting through the information portal additional information regarding the design of the vehicle and using the additional information to determine if a portion of the verification information correlates with the program requirement. The method includes the steps of using the portion of the verification information that correlates with the program requirement if determined that a portion of the verification information correlates with the program requirement. The method further includes the steps of generating new information if a portion of the verification information does not correlate with the program requirement.

None of the references cited, either alone or in combination with each other, teach or suggest the claimed invention of claim 10. Specifically, Juran merely discloses new steps for planning quality into goods and services in which a data base is a body of information derived from prior cycles of activity, and organized to aid in the conduct of future cycles. Juan lacks a library accessed through a web-based information portal on a computer system and an information database accessed through the information portal. Juran also lacks the steps of selecting a vehicle program requirement from a library stored in a memory of a computer system, selecting an information database containing information related to the design of the vehicle from the library, determining if the information from the information database correlates with the program requirement, and using the information from the information database in the design of

the vehicle. Juran further lacks the steps of selecting through the information portal additional information regarding the design of the vehicle and using the additional information to determine if a portion of the verification information correlates with the program requirement, using the portion of the verification information that correlates with the program requirement if determined that a portion of the verification information correlates with the program requirement, and generating new information if a portion of the verification information does not correlate with the program requirement. In Juran, the steps include the use of a data base, but do not include selecting a vehicle program requirement from a library, selecting an information database containing information related to the design of the vehicle from the library, and determining if the information from the information database correlates with the program requirement. Also in Juran, there is no selecting through the information portal additional information regarding the design of the vehicle and using the additional information to determine if a portion of the verification information correlates with the program requirement, using the portion of the verification information that correlates with the program requirement if determined that a portion of the verification information correlates with the program requirement, and generating new information if a portion of the verification information does not correlate with the program requirement. Contrary to the Examiner's opinion, page 409 of Juran discloses that Figure 12-1 sets out the critical aspects of construction and use of data bases, which is not the same or similar to selecting an information database of verification information for the design of a vehicle, determining if the verification information from the information database correlates with the program requirement, or using the information from the information database in the design of the vehicle, if the verification information correlates with the program requirement.

Tucker merely discloses that the World Wide Web (WWW) is the fastest-growing protocol on the Internet. Tucker lacks a method of integrating product information management with vehicle design. Tucker also lacks selecting a vehicle program requirement from a library stored in a memory of a computer system, selecting an information database containing information related to the design of the vehicle from the library, determining if the information from the information database correlates with the program requirement, and using the information from the information database in the design of the vehicle. Tucker further lacks selecting through the information portal additional information regarding the design of the vehicle and using the additional information to determine if a portion of the verification information correlates with the program requirement, using the portion of the verification information that correlates with the program requirement if determined that a portion of the verification information correlates with the program requirement, and generating new information if a portion of the verification information does not correlate with the program requirement. In Tucker, there is no integration of product information with vehicle design. Although Tucker discloses the Internet, it does not make up for the deficiencies in Juran such as selecting an information database of verification information for the design of a vehicle, determining if the verification information from the information database correlates with the program requirement, or using the information from the information database in the design of the vehicle, if the verification information correlates with the program requirement.

The present invention sets forth a unique and non-obvious combination of a method of integrating product information management with vehicle design. Advantageously, the method links together various existing databases, system infrastructure and information sources to provide a user with access to information contained therein to assist the user in

informed decision making. The references, if combinable, fail to teach or suggest the combination of a method of integrating product information management with vehicle design to verify existing information including the steps of selecting a vehicle program requirement for the design of the vehicle from a library stored in a memory of the computer system, wherein the library is access through a web-based information portal displayed on the display device, selecting an information database of verification information for the design of the vehicle, wherein the information database is accessed through the information portal, determining if the verification information from the information database correlates with the program requirement, using the information database in the design of the vehicle if the verification information correlates with the program requirement, selecting through the information portal additional information regarding the design of the vehicle and using the additional information to determine if a portion of the verification information correlates with the program requirement, using the portion of the verification information that correlates with the program requirement if determined that a portion of the verification information correlates with the program requirement, and generating new information if a portion of the verification information does not correlate with the program requirement as claimed by Applicants. Thus, the Examiner has failed to establish a case of prima facie obviousness.

Against this background, it is submitted that the present invention of claim 10 is not obvious over Juran and Tucker. The references fail to teach or suggest the combination of a method of integrating product information management with vehicle design of claim 10. Therefore, it is respectfully submitted that claim 10 is not obvious and is allowable over the rejection under 35 U.S.C. § 103.

Dependent claims 11 through 16 perfect and further limit independent claim 10. Claim 11 defines determining through the information portal if a condition is known by which the verification information was generated, if a portion of the verification information correlates with the program requirement. Claim 12 defines generating new verification information if the condition by which the verification information was generated is not known and using the new verification information in the design of the vehicle. Claim 13 defines determining confidence in the portion of the verification information that correlates with the program requirement if the condition by which the verification information is generated is known. Claim 14 defines performing a computer-aided engineering analysis of the verification information if not confident in the verification information. Claim 15 defines using the portion of the verification information and the results of the computer-aided engineering analysis in the design of the vehicle if confident in the computer-aided engineering analysis. Claim 16 defines using the portion of the verification information in the design of the vehicle if confident in the verification information. Based on the above, it is respectfully submitted that claims 11 through 16 are not obvious and are allowable over the rejection under 35 U.S.C. § 103.

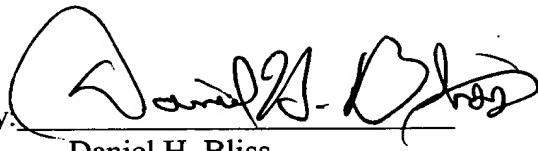
Obviousness under § 103(a) is a legal conclusion based on factual evidence (In re Fine, 837 F.2d 1071, 1073, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988)), and the subjective opinion of the Examiner as to what is or is not obvious, without evidence in support thereof, does not suffice. The Examiner may not, because he/she doubts that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in the factual basis. See In re Warner, 379 F. 2d 1011, 154 U.S.P.Q. 173 (C.C.P.A. 1967). Because the Examiner has not provided a sufficient factual basis that is supportive of his/her position (see In



re Warner, 379 F.2d 1011, 1017, 154 U.S.P.Q. 173, 178 (C.C.P.A. 1967), cert. denied, 389 U.S. 1057 (1968)), the rejections of claims 1 through 16 are improper.

In conclusion, it is respectfully submitted that the rejections of claims 1 through 16 are improper and should be reversed.

Respectfully submitted,

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**APPENDIX**

The claims on appeal are as follows:

1. A method of integrating product information management with vehicle design, said method comprising the steps of  
  
selecting a vehicle program requirement from a library stored in a memory of a computer system, wherein the library is accessed through an information portal on the computer system;  
  
selecting an information database containing information related to the design of the vehicle from the library, wherein the information database is accessed through the information portal;  
  
determining if the information from the information database correlates with the program requirement; and  
  
using the information from the information database in the design of the vehicle, if the information from the information database correlates with the program requirement.
2. A method as set forth in claim 1 including the step of selecting through the information portal additional information for determining if the information from the information database correlates with the program requirement, if the information from the information database does not correlate with the program requirement.

3. A method as set forth in claim 2 including the step of determining if a portion of the information from the information database correlates with the program requirement based on the additional information.

4. A method as set forth in claim 3 including the step of using the portion of the information from the information database that correlates with the program requirement in the design of the vehicle, if a portion of the information from the information database correlates with the program requirement.

5. A method as set forth in claim 4 including the step of selecting through the information portal additional information regarding the design of the vehicle.

6. A method as set forth in claim 5 including the step of using the additional information to determine whether to generate new information for use in the design of the vehicle and generating new information if determined that the new information should be generated.

7. A method of integrating product information management with vehicle design, said method comprising the steps of:

selecting a vehicle program requirement from a library stored in a memory of a computer system, wherein the library is accessed through a web-based information portal on the computer system;

selecting an information database containing information related to the design of the vehicle from the library, wherein the information database is accessed through the information portal;

determining if the information from the information database correlates with the program requirement;

using the information from the information database in the design of the vehicle, if the information from the information database correlates with the program requirement;

selecting through the information portal additional information for determining if the information from the information database correlates with the program requirement, if the information from the information database does not correlate with the program requirement;

determining if a portion of the information from the information database correlates with the program requirement based on the additional information; and

using the portion of the information from the information database that correlates with the program requirement in the design of the vehicle.

8. A method as set forth in claim 7 including the step of selecting through the information portal additional information regarding the design of the vehicle.

9. A method as set forth in claim 8 including the step of using the additional information to determine whether to generate new information for use in the design of the vehicle and generating new information if determined that the new information should be generated.

10. A method of integrating product information management with vehicle design to verify existing information, using a computer system having a memory, a display device and a user interactive device, said method comprising the steps of:

selecting a vehicle program requirement for the design of the vehicle from a library stored in a memory of the computer system, wherein the library is access through a web-based information portal displayed on the display device;

selecting an information database of verification information for the design of the vehicle, wherein the information database is accessed through the information portal;

determining if the verification information from the information database correlates with the program requirement;

using the information database in the design of the vehicle if the verification information correlates with the program requirement;

selecting through the information portal additional information regarding the design of the vehicle;

using the additional information to determine if a portion of the verification information correlates with the program requirement;

using the portion of the verification information that correlates with the program requirement if determined that a portion of the verification information correlates with the program requirement; and

generating new information if a portion of the verification information does not correlate with the program requirement.

11. A method as set forth in claim 10 including the step of determining through the information portal if a condition is known by which the verification information was generated, if a portion of the verification information correlates with the program requirement.

12. A method as set forth in claim 11 including the step of generating new verification information if the condition by which the verification information was generated is not known and using the new verification information in the design of the vehicle.

13. A method as set forth in claim 11 including the step of determining confidence in the portion of the verification information that correlates with the program requirement if the condition by which the verification information is generated is known.

14. A method as set forth in claim 13 including the step of performing a computer-aided engineering analysis of the verification information if not confident in the verification information.

15. A method as set forth in claim 14 including the step of using the portion of the verification information and the results of the computer-aided engineering analysis in the design of the vehicle if confident in the computer-aided engineering analysis.

16. A method as set forth in claim 13 including the step of using the portion of the verification information in the design of the vehicle if confident in the verification information.